

IN THE CLAIMS

Please amend claims 1-4, 7, 9, 17, 18, 20, and 43 as shown below, in which deletions are indicated by strikethrough and/or double brackets, and additions are indicated by underscoring. Please cancel claims 5, 6, 8, 10, and 11 without prejudice and without dedication or abandonment of the subject matter thereof. Also, please add new claims 45-48. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A ~~wet-type compacting~~ production method for powder a carbide sintered compact comprising the steps of:

forming a mixture of a solvent and carbide powder coated with high polymer organic substance that is substantially insoluble in the solvent; ~~and~~

producing a compact from said mixture; and

sintering the produced compact

wherein the high polymer organic substance exhibits a function as a sintering aid of the carbide powder, and

wherein the porosity of the sintered compact is 10 volume % or less.

2. (Currently amended) A ~~wet-type compacting~~ production method for powder a boron carbide sintered compact according to claim 1, ~~wherein a main component of the solvent is water~~ comprising the steps of:

coating boron carbide powder with a high polymer organic substance that is substantially insoluble in water;

mixing the coated boron carbide powder and water to form a slurry;

producing a compact from the slurry; and
sintering the produced compact,
wherein the high polymer organic substance exhibits a function as a sintering aid of the
powder when sintered so as to control the grain growth of boron carbide, and a part of the
sintering aid is taken into boron carbide crystals, and
wherein the porosity of the sintered compact is 10 volume % or less.

3. (Currently amended) A ~~wet-type compacting~~ production method for powder a boron carbide sintered compact according to claim [[1]] 2, wherein a volume fraction of the powder and the high polymer organic substance in the mixture is 1 - 40 parts by volume of the high polymer organic substance to 100 parts by volume of the boron carbide powder.

4. (Currently amended) A ~~wet-type compacting~~ production method for powder a boron carbide sintered compact according to claim [[1]] 2, wherein the ~~mixture is in the form of a slurry, and said producing step involves pouring the slurry~~ is poured into a porous mold to let the mold absorb a part of the ~~solvent water~~, thereby producing the compact.

5. (Canceled).

6. (Canceled).

7. (Currently amended) A method according to claim [[1]] 2, ~~further comprising the steps of: drying the produced compact; and sintering the dried compact~~ wherein the produced compact is dried, and then the dried compact is sintered.

8. (Canceled).

9. (Currently amended) A method according to claim [[8]] 2, wherein all or a part of said sintering step is performed in a non-oxidizing atmosphere, such that the high polymer organic

substance is reformed to a substance which contains carbon from the high polymer organic substance as its main component, and the substance containing the carbon as its main component exhibits a function as a sintering aid of the powder.

10. (Canceled).

11. (Canceled).

12. (Withdrawn) A sintered powder compact obtained by the method according to claim 7.

13. (Withdrawn) A sintered powder compact according to claim 12, wherein the sintered powder compact contains a reformed component from part or all of the carbon of the high polymer organic substance.

14. (Withdrawn) A mixture of a solvent and a powder coated with a high polymer organic substance that is substantially insoluble in the solvent.

15. (Withdrawn) A mixture according to claim 14, wherein the powder comprises carbide powder.

16. (Withdrawn) A powder coated with a high polymer organic substance for use in the mixture according to claim 14.

17. (Withdrawn-Currently amended) A sintered powder compact obtained by the ~~wet-type compacting production method of powder~~ according to claim 1.

18. (Currently amended) A production method for a boron carbide sintered powder compact according to claim 2, ~~comprising the steps of: preparing a starting mixture containing a ceramic powder, a solvent and an aid as main components thereof; compacting the starting mixture; and sintering the compacted mixture, wherein the aid~~ wherein the high polymer organic substance functions as a compacting aid for providing at least one of plasticity and strength to a compact or

its precursor in the compacting step, ~~while, in the sintering step, the aid exhibits an effect as a sintering aid for promoting sintering.~~

19. (Withdrawn) A sintered powder compact produced by the production method for a sintered powder compact according to claim 18.

20. (Currently amended) A production method for a boron carbide sintered compact according to claim 2 ~~comprising the steps of:~~

~~dispersing a powder of which the main component is boron carbide of an wherein the average particle size of boron carbide powder is 0.3 μm ~ 1.4 μm together with a compacting aid and a sintering aid in a solvent to form a slurry;~~

~~pouring the slurry into a porous mold;~~

~~letting the porous mold absorb a part of the solvent to solidify the slurry, thereby making a compact;—~~

~~drying the compact; and~~

~~sintering the compact under atmospheric pressure and a non-oxidizing atmosphere.~~

21. (Withdrawn) A boron carbide sintered compact produced by the production method for a boron carbide sintered compact according to claim 20.

22. (Withdrawn) A mobile body device with a positioning function, wherein part or all of a movable section of the mobile body device comprises a sintered powder compact produced according to the method of claim 7.

23. (Withdrawn) A mobile body device according to claim 22, wherein a specific rigidity ratio of the sintered powder compact is 100 GPa or more.

24. (Withdrawn) A mobile body device according to claim 22, wherein the mobile body

device is a hydrostatic fluid bearing device.

25. (Withdrawn) A mobile body device according to claim 24, wherein the hydrostatic fluid bearing device is used in a lithography device for forming a pattern on a tabular object.

26. (Withdrawn) A mobile body device according to claim 25, wherein the tabular object is one of a semiconductor wafer and a liquid crystal panel.

27. (Withdrawn) A mobile body device according to claim 22, wherein said part or all of the movable section has at least one of a hollow structure and a rib structure.

28. (Withdrawn) A mobile body device according to claim 27, wherein said at least one of the hollow structure and the rib structure is formed by arranging molds during slip casting.

29. (Withdrawn) A mobile body device according to claim 27, wherein said at least one of the hollow structure and the rib structure is formed by joining a plurality of said sintered powder compacts.

30. (Withdrawn) A mobile body device according to claim 27, wherein said at least one of the hollow structure and the rib structure is formed by soldering the sintered compact.

31. (Withdrawn) A mobile body device according to claim 27, wherein said at least one of the hollow structure and the rib structure is formed by processing the compact before sintering.

32. (Withdrawn) A hydrostatic fluid bearing device, wherein part or all of a movable section of the device is made of material having a specific rigidity ratio of 100 GPa or more, and part or all of the movable section has at least one of a hollow structure and a rib structure.

33. (Withdrawn) A protective member for absorbing shock from collision with a missile comprising a sintered powder compact produced according to the method of claim 7.

34. (Withdrawn) A protective member for absorbing shock from collision with a missile

comprising a sintered powder compact made by slip casting and sintering of a ceramic powder.

35. (Withdrawn) A protective member for absorbing shock from collision with a missile according to claim 33, wherein the protective member further includes a backup material provided together with the sintered powder compact for absorbing shock from collision with the missile.

36. (Withdrawn) A protective member for absorbing shock from collision with a missile according to claim 33, further comprising at least one other material provided on opposite sides of the sintered powder compact in a sandwiched structure.

37. (Withdrawn) A device equipped with the protective member for absorbing shock from collision with a missile according to claim 33 on all or a part of a crust of the device.

38. (Withdrawn) A device according to claim 37, wherein all or part of the crust equipped with the protective member for absorbing shock from collision with a missile is obliquely provided to an estimated direction of collision with the missile.

39. (Withdrawn) A device equipped with a protective member with a curved structure for absorbing shock from collision with a missile, comprising a ceramic sintered compact with a curved structure provided on all or part of a crust of the device.

40. (Canceled).

41. (Withdrawn) A mixture according to claim 15, wherein a main component of the solvent is water.

42. (Withdrawn) A mixture according to claim 15, wherein a volume fraction of the powder and the high polymer organic substance in the mixture is 1 - 40 parts by volume of the high polymer organic substance to 100 parts by volume of the powder.

43. (Currently amended) ~~A production~~ The method according to claim ~~[[20]]~~ 45, comprising a further step of performing HIP treatment on the sintered compact.
44. (Withdrawn) A device according to claim 39, wherein the protective member is provided obliquely to an estimated direction of collision with the missile.
45. (New) The method according to claim 7, wherein the sintering step is performed under atmospheric pressure and a non-oxidizing atmosphere.
46. (New) The method according to claim 1, wherein the production method is a wet method, and the mixture is a slurry.
47. (New) The method according to claim 1, wherein the high polymer organic substance is selected from the group consisting essentially of epoxy resin, polyurethane resin, diallyl phthalate resin, polyethylene resin, polycarbonate resin, fluorocarbon resin, polypropylene resin, urea resin, melamine resin, polyester resin, styrol resin, acrylic resin, polyacetal resin, polyvinyl acetate resin, phenol resin, polyamide resin, vinyl chloride resin, cellulose resin, and saccharides.
48. (New) The method according to claim 2, wherein the high polymer organic substance is selected from the group consisting essentially of epoxy resin, polyurethane resin, diallyl phthalate resin, polyethylene resin, polycarbonate resin, fluorocarbon resin, polypropylene resin, urea resin, melamine resin, polyester resin, styrol resin, acrylic resin, polyacetal resin, polyvinyl acetate resin, phenol resin, polyamide resin, vinyl chloride resin, cellulose resin, and saccharides.